

TO: DIRECTORS, HOUSING
DIRECTORS, MULTIFAMILY HOUSING
DIRECTORS, SINGLE FAMILY HOUSING

MATERIALS RELEASE NO. 1270

ISSUE DATE February 28, 199

REVIEW DATE February 28, 199

SUBJECT: 1. Product Derbigum XPS/GP & Derbicolor XPS/GP
Membrane Roofing Systems

2. Name and Address
of Manufacturer Performance Roof Systems, Inc.
4821 Chelsea Avenue
Kansas City, MO 64130

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Single-Ply Membrane Roofing Systems. These roofing systems can be laid over any type deck or roof insulation which is acceptable to both Performance Roof Systems, Inc. (PRS), and meets requirements of HUD Minimum Property Standards (MPS).

DESCRIPTION:

- Derbigum XPS - A polymer modified bitumen product combining glass fiber mat, glass fiber scrim, and polyester mat. The modified bitumen provides a built-in adhesive for torch-on application.
- Derbigum GP - A polymer modified bitumen product combining glass fiber mat and a polyester mat. The modified bitumen provides a built-in adhesive for torch-on application.
- Derbicolor XPS - A polymer modified bitumen product combining a glass fiber mat, glass fiber scrim, and a polyester mat. The membrane is surfaced with factory applied slate mineral chips. The modified bitumen provides a built-in adhesive for torch-on application.

- Derbicolor GP - A polymer modified bitumen product combining a glass fiber mat and a polyester mat. The membrane is surfaced with factory applied slate mineral chips. The modified bitumen provides a built-in adhesive for torch-on application.

Note: Some local codes may preclude the use of ballast.

MATERIALS:

Materials for these roofing systems shall be supplied by PRS or its licensed and certified Performance Approved Contractor (PAC). Any materials supplied by a contractor, e.g. fasteners and nailers, shall be accepted in writing before application, by PRS.

Physical properties of the membrane (tensile strength, elongation, creep, softening point, brittleness, etc.) are on file at HUD Headquarters and PRS Headquarters. The roofing membrane shall comply with the requirements in Table 1.

TABLE 1 REQUIREMENTS

CHARACTERISTICS	VALUES	TEST METHOD
Tensile strength, psi min. @ 0°F	207.7#-261.6#	ASTM D 5147
Tensile strength, psi. min @ 73°F	116.8#-151.1#	ASTM D 5147
Softening Point	310°F-311°F	ASTM D 36
Elongation, percent, min. @ 0°F	4.3%-5.3%	ASTM D 5147
Elongation, percent, min. @ 73°F	4.7%-5.3%	ASTM D 5147
Low Temperature Flexibility	Passed @ 0°F	ASTM D 5147

WIND AND FIRE CLASSIFICATIONS:

The roofing system shall resist the wind uplift forces specified in American Society of Civil Engineers (ASCE) 7-88. Fire Classification shall meet HUD MPS, and be in accordance with Underwriters Laboratories (UL) and Factory Mutual Engineering Corp. (FM).

INSPECTION:

A designated representative of PRS or their licensed and certified contractor (PAC) shall make inspections of the installation prior to delivery of materials to accept or reject the roof deck to which the PRS roofing system is to be applied, and upon completion of the installation, to give final approval of the installation of the roofing system. Additional intermediate inspections may take place as deemed necessary.

DELIVERY AND STORAGE:

Materials damaged in shipping or storage shall not be used. All materials provided by PRS shall be delivered in containers with labels indicating appropriate warnings, storage conditions, lot numbers, and instructions for use. Broken containers shall not be accepted.

INSTALLATION:

1. General

The Performance Roofing System shall only be installed by PRS licensed and certified contractors (PAC). The system shall be installed in accordance with "PRS Derbigum Specifications and Details". This includes drawings and specifications to be used for both Derbigum torching applications and Permastic asphalt cold based adhesive application.

The PRS/PAC shall examine the surface scheduled to receive the membrane for any defects. Application of the system shall not commence until all substrate defects are remedied.

Base Plies, Membrane placing, bonding, lap splicing, perimeter attachment, walkways, side and end lap treatment and aggregate surfacing (if applicable) shall be in accordance with PRS Derbigum Specifications and Details. Moreover, PRS shall be responsible for punctures or damage to the Derbigum membrane caused by their aggregate application, or that of PAC.

In recover applications, Derbibase shall be installed by torch welding method, or as an alternative method in Permastic, or mechanically fastened in accordance with FMRC recommendations. Installation shall be in accordance with PRS specifications and instructions.

Fasteners appropriate to substrate must be selected. Fasteners are critical to the performance of the roofing system, and must be adequately protected against corrosion. Mechanical fasteners used in Derbigum roof systems shall be protected to meet or exceed Factory Mutual Standard 4470, Appendix E.

All flashing and details shall be executed in accordance with specific instructions in PRS Derbigum Specifications and Details, and in compliance with general recommendations contained in National Roofing Contractors Association (NRCA) Construction Details.

GUARANTY:

- A. Limited Material Warranty - PRS warrants for a period of 10 years from installation that the product provided shall meet published performance criteria when used in Performance Roofing System. If used as intended, and it does not properly perform during the 10 year commitment, PRS shall replace the material at no cost to the owner.
- B. Roof Membrane System Guaranty - This Guaranty shall be provided by PRS at no cost to the owner. PRS shall repair any leaks, blisters, fishmouths, slippage, wrinkles or ridges in the roof membrane or system, and at its cost, replace the roof system at any time during this 10 year period from date of installation. This guaranty includes all parts of the system including material, membrane, insulation, flashing, fasteners, or any other approved accessories affected by such leak which are either defective, improperly applied, or damaged.

The PRS Guaranty shall be amended to guarantee that the insulation accepted/supplied by PRS or the Dow IRMA insulation will retain at least 80 percent of its specified aged thermal resistance value for a period of 10 years from date of installation. The protected membrane system meeting the Dow IRMA specifications shall be installed by a contractor accepted by both PRS and Dow.

Both the above warranties/guaranty shall be transferable to subsequent owners during the 10 year period, if notice of transfer is given to PRS in writing within 30 days of transfer.

The wind damage exclusion shall be only from winds which exceed the design wind.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, Manufactured Housing and Standards Division, HUD Headquarters, with a representative list of properties in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fees shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. The revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned
firm, and is not transferable to any person or successor
entity.
